Ameren comments highlighted in red below.

December 15, 2004

- Suggested changes to the Draft Rule are noted in standard red text.
- **[Commentary related to the suggested changes are highlighted in red bold text and enclosed in brackets.]**

TITLE 83: PUBLIC UTILITIES
CHAPTER I: ILLINOIS COMMERCE COMMISSION
SUBCHAPTER C: ELECTRIC UTILITIES

PART XXX
INTERCONNECTION OF DISTRIBUTED RESOURCES
TO ELECTRIC UTILITY DISTRIBUTION SYSTEMS

AUTHORITY: Implementing Section 9-241 and authorized by Section 10-101 of the Public Utilities Act [220 ILCS 5/9-241 and 10-101].

SOURCE: Adopted at ___ Ill. Reg. _____, effective _____.

Section XXX.010 Definitions

"Affected Systems" means any electric system not owned or operated by the interconnection provider, that is either directly or indirectly connected to the interconnection provider's electric system and, prior to performing any system study, it is judged by the Interconnection Provider that a Violation on that electric system will result from the interconnection and parallel operation of the interconnection customer's distributed resource. **[Greater specificity is needed to properly address the definition of when an electric system is affected. Also, by using the term "Violation", which is defined below, it is clear what constitutes an Affected System. The term "adversely affected" is not defined.]**

"Interconnection Agreement" means an interconnection and parallel operation agreement for a distributed resource by and between the interconnection provider and the interconnection customer. **[The term "Agreement" is not used by itself in the document. There are other "Agreements" that should also be defined, but are not presently included, such as the Feasibility/Impact Study Agreement, and Facilities Study Agreement.]**

"Business Day" means Monday through Friday except for State of Illinois holidays.

"Distributed Resource" means equipment that can become a source of electric power within the size limits per IEEE 1547, including but not limited to generators and/or energy storage technologies.

"Electric System" means an electric transmission or distribution system owned and operated by the Interconnection Provider. **[The term "Affected System" covers electric systems not owned by the Interconnection Provider.]**

"Facilities Study" means a study, executed in accordance with Section XXX.120, that determines the design of specific changes **[The Facilities Study is a follow-up to the Feasibility/Impact Study (wherein the intital determination of changes is made). The Facilities Study would provide the final design of all necessary changes.]** to the electric transmission or distribution system(s) necessary to interconnect a Distributed Resource, and determines the estimated cost of those changes. The facilities study shall also include suggested changes to the interconnection customer's proposed distributed resource if the interconnection provider believes these changes would reduce interconnection costs. **[The term "Distributed Resource" is defined and is inclusive of "generation equipment" by its definition.]**

"Feasibility/Impact Study" means a study, executed in accordance with Section XXX.110, that identifies the effect(s) of interconnecting a distributed resource to an interconnection provider's electric system, including identification of potential violations and the effect the interconnection would have on system reliability. The feasibility/impact study also estimates the magnitude of costs associated with facilities and/or system modifications necessary for completing the interconnection.

"FERC" means the Federal Energy Regulatory Commission

"IEEE" means Institute of Electrical and Electronics Engineers, Inc., a non-profit technical professional organization. **[Because these elements could change, they should be avoided in the definition.]**

"Interconnection Customer" means any entity proposing to interconnect a distributed resource to an interconnection provider's Electric System or any entity that has entered into a valid interconnection agreement with an interconnection provider. **[The term "system" is not defined. The term "Electric System" is defined and is the correct term to use.]**

"Interconnection Provider" means a public utility as defined by the Public Utilities Act [220 ILCS 5], that owns and/or operates an electric system to which the interconnection customer desires to interconnect a distributed resource, or has interconnected a distributed resource.

"Line Section" means a section of the distribution system between two sectionalizing devices in the Electric System or between a sectionalizing device and the end of the line**.**

"Parallel Operation" means the operation of a distributed resource connected to an interconnection provider's electric system for a period of six (6) or more cycles.

"Point of Common Coupling" –means the point at which the interconnection between the interconnection provider's Electric System and the interconnection customer's distributed resource interface occurs. **[The abbreviation "PCC" is not used in the document.]**

"Radial Distribution Circuit"–means a distribution line that branches out from a substation and is normally not connected to another substation or another circuit sharing the common supply of electric power.

[The definition of UL should be deleted since this term is not used in the document.]

"Sectionalizing Device" means any breaker, recloser, fuse or other disconnect device capable of automatically opening and isolating a portion of the line.

"Spot Network" means: **[This term still needs to be defined. The term is used in section xxx.070 b) and c).]**

"Transmission System" means those components of the electric system defined as transmission in accordance with FERC guidelines.

"Violation" means a condition on an electric transmission or distribution system that, based on established planning and operation standards, is considered unacceptable by the owner and/or operator of the system.

Section XXX.020 Purpose

This Part states the terms and conditions that govern the interconnection and parallel operation of distributed resources. **[Commentary is not appropriate in this context.]**

Section XXX.030 Applicability

a) All interconnection providers and Interconnection Customers **[Both the IP and IC must follow this Rule. By not referencing the Interconnection Customer it appears that they do not have to follow this Rule.]** are required to adhere to the provisions in this Part. The interconnection procedures in this Part define the process for **[the term "available" leaves the impression that the procedures are voluntary.]** interconnection customers proposing to interconnect distributed resources to the interconnection provider's electric distribution system. This Part applies to all distributed resource interconnections operating in parallel to an interconnection provider's electric system except those interconnections within the exclusive jurisdiction of the FERC. This Part does not apply to distributed resources that are operated in isolation from an electric system.

b) Neither these procedures nor the requirements included in this Part apply to distributed resources interconnected or approved for interconnection with electric systems prior to 60 business days after the effective date of this Part.

Section XXX.040 Terms of Interconnection

a) The interconnection provider shall issue an interconnection agreement to the interconnection customer if:

1) the interconnection provider receives a completed application from the interconnection customer in accordance with Section XXX.050; and

2) the interconnection customer's proposed distributed resource meets the specifications in IEEE 1547-2003 (2003 edition, approved July 28, 2003, published by the Institute of Electrical and Electronics Engineers, Inc., 3 Park Avenue, New York, NY 10016-

5997 or the edition of IEEE 1547 in affect at the time the interconnection agreement is issued.), and **[To account for and utilize future changes in the IEEE standard, it should not be limited to a particular version.]**

3) the interconnection customer passes the primary screening criteria in Section XXX.070 and/or secondary screening criteria in XXX.080 or the interconnection customer's proposed distributed resource undergoes a feasibility/impact study under Section XXX.110 and, if necessary, a facilities study under Section XXX.120 and the interconnection provider determines that the distributed resource can be interconnected safely and reliably following modifications to the interconnection provider's Electric System, modifications to an affected system, and/or modifications to the interconnection customer's facilities, or no modifications whatsoever and the Interconnection Customer agrees to pay for or make such modifications, as applicable. **[We must include the IC's commitment to make or pay for the modifications – not just have the IP determine that they are needed. Also, the Interconnection Provider's "facilities" is not a defined term.]**

b) Any requirement by the interconnection provider for the interconnection customer's proposed interconnection to deviate from the specifications in IEEE 1547-2003 shall be fully explained and supported in a document that identifies the interconnection provider employee capable of responding to any inquiry regarding the requirement.

c) The issuance of an Interconnection Agreement does not, in and of itself, convey any requirement for the Interconnection Provider to accept energy from the Interconnection Customer's Distributed Resource. Nor does it convey any transmission service rights to the Interconnection Customer from the Distributed Resource. Acceptance of energy and transmission service are covered by other agreements, rules, or provisions. **[It is important that the Interconnection Customer is aware that obtaining the ability to operate in parallel through an Interconnection Agreement does not address the other aspects of Distributed Generation operation.]**

Section XXX.050 Application for Interconnection

a) To assist an interconnection customer in the interconnection process and in accordance with Section XXX.140, the interconnection provider shall designate an employee or office from which information on the application process and on the interconnection provider's electric system shall be obtained through formal requests from the interconnection customer presenting a proposed project for a specific site. Electric System information provided to interconnection customers shall include relevant materials useful to an understanding of an interconnection at the proposed

interconnection point on the Electric System. The interconnection provider shall comply with requests for such information if the interconnection customer agrees to comply with applicable confidentiality requirements. **[Due to security concerns, information should only be provided upon submittal of an initial formal request. The Interconnection Provider may work with the Interconnection Customer on a more "informal" basis upon confirmation that the Interconnection Customer has made a legitimate request. The reference to "a particular point" is not sufficiently specific. The Interconnection Customer must provide the specific "interconnection point" so that relevant studies, etc. can be provided. The Interconnection Customer should also be required to provide proof of ownership (see xxx.050 g). In addition to security concerns, the system studies may contain proprietary information. Relying on previous system and interconnection studies could also lead to incorrect conclusions.]**

b) The interconnection customer shall submit an application to the interconnection provider's designated employee or office in the form of Appendix B for single-phase equipment 20 kVA or smaller, or in the form of Appendix C for single phase equipment larger than 20 kVA or for three-phase equipment of any size. Applications shall be date stamped upon receipt. **[The use of a time stamp is irrelevant to the requirements of this Part and is an unnecessary burden. Since time frames in this Part are based on days and not hours, a time stamp provides no relevant value.]** The original date applied to the application at the time of its original submission for interconnection shall be accepted as the qualifying date- stamp for the purposes of any timetable in this Part. **[The issuance of a "notification of receipt … within three business days" is overly burdensome with respect to the value gained. If the Interconnection Customer is significantly concerned that a request is received in a timely manner, the IC should already be in contact with the person identified in Paragraph A, above, and could either call to verify receipt or request the IP to return a call verifying receipt. In most cases, this type of notification is not crucial or necessary in the scope of the Interconnection Customer's activities. In addition, the notification required by the next sentence will provide a means for the Interconnection Customer to become sufficiently aware of any delay with their application submittal.]** The interconnection provider shall notify the interconnection customer, within ten business days after receipt of the application, that the application is either complete or incomplete.

c) If the application is incomplete, the interconnection provider shall provide along with the notice that the application is incomplete, a list detailing all information necessary to complete the application. The interconnection customer shall have twenty business days after receipt of the notice to

submit the listed information. If the interconnection customer does not provide the listed information within the twenty business day deadline,the Interconnection Provider shall consider the application to have been withdrawn. **[The Interconnection Customer must have a duty to timely respond to keep the process from getting bogged down.]** An application shall be considered complete upon confirmation by the Interconnection Provider that the submitted information is complete. The date which the application is deemed complete establishes the order in which the application is processed (see section xxx.050 f) below). **[The Interconnection Provider must be able to confirm any submission for completeness prior to continuing with the interconnection process.]**

d) Certain applications may require minor modifications while being reviewed by the interconnection provider. Such minor modifications to a pending application shall not require the filing of a new application. Any proposed modification to machine data or equipment configuration or to the interconnection site of the distributed resource by the interconnection customer not agreed to in writing by the interconnection provider and the interconnection customer shall be deemed a withdrawal of the application and shall require submission of a new application. However, when it is mutually agreed that machine data or equipment configuration modifications shall have no significant effect on the distributed resource interconnection, the interconnection provider shall not require the interconnection customer to submit a new application.

e) The interconnection provider shall treat the application and any communications concerning the nature of proposed distributed resource interconnection confidentially. The interconnection provider shall not use knowledge of proposed distributed resource projects submitted to it for interconnection or study to prepare competing proposals to the interconnection customer that offer either discounted rates in return for not installing the distributed resource, to offer competing proposals to install distributed resource, or for any purpose other than facilitating the application and interconnection processes. The interconnection provider shall not share any confidential information about proposed distributed resource interconnections with its affiliates that are involved in the wholesale market function as defined by FERC Order 888 or 889 or any party other than the interconnection customer.

f) The interconnection provider shall process all applications in a non-discriminatory manner. Applications shall be processed in the order that they are determined to be complete.

g) The interconnection customer shall submit proof of site control to the interconnection provider with its distributed resource interconnection application. Site control shall be demonstrated through:

1) a recorded deed, recorded lease or recorded agreement proving ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing a distributed resource; or

2) a recorded option to purchase/acquire a site and/or a leasehold interest in a site for such purpose.

h) Interconnection provider shall assess only the actual administrative costs associated the interconnection application and shall charge those costs to interconnection customer for handling the interconnection application. **[The policy of no administrative charges will socialize costs where the causation is directly attributable to the Interconnection Customer's actions. Isolating the Interconnection Customer from these costs will unfairly subsidize the true cost for installing Distributed Resources. The Interconnection Customer should bear all costs associated with interconnection to allow for the marketplace to effectively guide the efficient installation and selection of new generation.]**

i) Submissions and notices under this Section shall be satisfied by electronic mail, facsimile, U.S. Mail, or another mutually agreed upon method.

Section XXX.060 Initial Review

a) Within fifteen business days after the interconnection provider notifies the interconnection customer of receipt of a completed application, the interconnection provider shall perform an initial review using the primary and secondary screening criteria set forth in Section XXX.070 and Section XXX.080 respectively. Upon completion of the initial review, the interconnection provider shall provide written notification to the interconnection customer of the results in accordance with Section XXX.090. The notification shall include copies of the initial review results of the interconnection provider's determinations under the screens. **[The analysis details and underlying data are potentially proprietary and should not be provided to the customer.]**

b) Interconnection providers shall file tariffs that include rates for the initial review. These rates shall be differentiated by the nameplate capacity of the generator being interconnected and characteristics of the circuit at the proposed point of interconnection.

Section XXX.070 Primary Screening Criteria

The primary screens required in this section include the following:

a) For interconnection of a proposed distributed resource to a radial distribution circuit, the aggregated generation, including the proposed distributed resource generation capacity, on the circuit shall not exceed 5% of the total circuit annual peak load, or 20% of the total circuit annual minimum load, whichever is less, as most recently measured at the substation.

b) For interconnection of a proposed distributed resource to the load side of spot network protectors, the proposed distributed resource must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5% of a spot network's maximum load or 50 kW.

c) The proposed small resource shall not be connected on the load side of a secondary network protector, except as allowed under subsection (b) for a spot network.

d) The proposed distributed resource, in aggregation with other generation on the distribution circuit, shall not contribute more than l0% to the distribution circuit's maximum short circuit current at the point on the high voltage (primary) level nearest the proposed point of common coupling.

e) The proposed distributed resource, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or interconnection customer equipment on the system to exceed 85% of the short circuit interrupting capability; nor is the interconnection proposed for a circuit that already exceeds 85% of the short circuit interrupting capability.

f) The proposed distributed resource, in aggregate with other generation interconnected to the distribution low voltage side of the substation transformer feeding the distribution circuit where the interconnection customer proposes to interconnect the distributed resource, shall not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., 3 or 4 voltage level busses from the voltage at the point of interconnection).

g) For interconnection of a proposed single-phase distributed resource to a primary distribution system that is three-phase, four-wire, the distributed

resource shall be connected line-to-neutral. For interconnection of a proposed single-phase distributed resource to a primary distribution system that is three-phase, three-wire, the distributed resource shall be connected line-to-line. At any point of common coupling, the single-phase distributed resource connected shall not exceed the greater of 10% of the minimum feeder load or 167 kVA.

h) For interconnection of a proposed three-phase distributed resource to a three-phase four-wire distribution circuit or a distribution circuit having mixed three-wire and four-wire sections, the aggregate generation capacity including the proposed distributed resource shall not exceed 10% of line section peak load.

i) If the proposed distributed resource is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed distributed resource, shall not exceed 20 kVA.

j) If the proposed distributed resource is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of nameplate rating of the service transformer.

k) The proposed distributed resource's point of common coupling shall not be a connection to the Transmission System.

Section XXX.080 Secondary Screening Criteria

The secondary screens include the following:

a) For interconnection of a proposed distributed resource to a radial distribution circuit, the new distributed resource's capacity in aggregate with other generation on the circuit shall not exceed 15% of total circuit peak load, or 50% of the total circuit annual minimum load, whichever is less, as most recently measured at the substation; nor shall it exceed 15% of a distribution circuit line section annual peak load, or 50% of the distribution line section annual minimum load, whichever is less.

b) For interconnection of a proposed distributed resource to the load side of spot network protectors, the proposed distributed resource shall utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5% of a spot network's maximum load or 50 kW.

c) For the interconnection of a proposed distributed resource to any network, the distributed resource must utilize a protective scheme that ensures that its current flow shall not affect the network protective devices including reverse power relays or a comparable function. Synchronous distributed resources shall not be interconnected to a network.

d) For interconnection of a proposed distributed resource that is an induction generator or that utilizes inverter-based protective functions, both of which include reverse power relay functions, the distributed resource's total net generating capacity, in aggregate with other distributed resources interconnected on the load side of network protective devices, does not exceed the lesser of 10% of the minimum load on the network or 50 kW. A distributed resource does not export to any network.

e) The proposed distributed resource, in aggregation with other generation on the distribution circuit, shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of common coupling.

f) The proposed distributed resource *in aggregate* with other generation on the distribution circuit shall not cause any distribution equipment, protective devices (including but not limited to substation breakers, fuse cutouts, and line reclosers), or interconnection customer equipment on the system to exceed 90% of their short circuit interrupting capability; nor is the interconnection proposed for a circuit that already exceeds the 90% short circuit interrupting capability limit.

g) The proposed distributed resource's point of common coupling shall not be on a transmission line.

Section XXX.090 Results of Initial Review

a) If the initial review determines that the proposed interconnection passes the primary screening criteria, then the interconnection application shall be approved and the interconnection provider shall issue the interconnection customer an interconnection agreement within ten business days after the determination. **[The term "executable" is unnecessary.]**

b) If the initial review determines that the proposed interconnection passes the secondary screening criteria and fails the primary screening criteria, then:

1) the interconnection provider shall determine through the initial review that the distributed resource may nevertheless be interconnected consistent with safety, reliability, and power quality

standards, and the interconnection provider shall issue the interconnection customer an interconnection agreement within ten business days after the determination; or **[The term "executable" is unnecessary.]**

2) the interconnection provider shall determine from the initial review that the distributed resource cannot be interconnected consistent with safety, reliability, and power quality standards unless the interconnection customer is willing to consider modifications to the distributed resource. The interconnection provider shall describe, in writing or through electronic mail within 20 business days after the determination, **[Ten days is not sufficient time to properly address this type of analysis.]** the general issues affecting safety, reliability, and power quality standards. The interconnection provider shall include copies of data and analyses underlying the interconnection provider's determination of the issues to be addressed. Within thirty business days of receipt of the interconnection provider's list of issues to be addressed, the interconnection customer shall provide written notification describing how the issues raised by the interconnection provider will be corrected. The interconnection provider shall confirm the adequacy of Interconnection Customer's response and, if satisfactory, shall forward an interconnection agreement to the interconnection customer within 10 business days after such confirmation. If the Interconnection Provider determines that the Interconnection Customer's response is not satisfactory, the Interconnection Provider shall so notify the Interconnection Customer within 10 business days. The Interconnection Customer shall provide further written notification within thirty days addressing any issues raised by the Interconnection Provider. Upon the Interconnection Provider's confirmation of the adequacy of Interconnection Customer's response, it shall forward an Interconnection Agreement to the Interconnection Customer within 10 business days **[The Interconnection Provider must have the ability to require that the Interconnection Customer's response properly addresses the safety, reliability, and power quality issues affecting the Electric System. Without this provision, the IP is required to move forward with an Interconnection Agreement irrespective of the adequacy of the IC's response.]**; or

3) the interconnection provider shall determine from the initial review that the distributed resource cannot be interconnected consistent with safety, reliability, and power quality standards unless the interconnection customer is willing to consider minor modifications to the interconnection provider's Electric System. **[The term "facility" is not defined and is open ended. The term "Electric**

System" is the appropriate reference.] The interconnection provider shall recommend, in writing or through electronic mail within twenty business days after the determination, that minor Electric System modifications are necessary for the interconnection customer to interconnect with the interconnection provider's system. **[Modifications to the Electric System should be limited to those considered minor. For more significant modifications, the process identified in Sections xxx.110 through xxx.120 should be utilized. Also, ten days is not sufficient time to provide copies of the data and analyses, provide a detailed explanation, provide an estimated time for completion and provide an estimated cost of construction.]** These recommendations shall outline the basis for the interconnection provider's determination of the need for minor Electric System modifications, **[The analysis details and underlying data are potentially proprietary and should not be provided to the Interconnection Customer.]** a detailed explanation of the necessary minor Electric System modifications, an estimated time for the completion of the minor Electric System modifications and a single estimate of the cost to complete the minor Electric System modifications. The interconnection customer shall pay the cost estimate with a final true up to actual costs upon completion of the minor Electric System modifications. Within thirty business days of receipt of interconnection provider's notice of the need for minor modifications and cost estimate, the interconnection customer shall issue payment to the interconnection provider for the minor Electric System modifications in order to be considered for interconnection. **[Binding cost estimates should not be an option. The Interconnection Customer should pay the actual costs, which protects both the IC and the IP. Final true-up will occur upon completion of the modifications.]** The interconnection provider shall forward an interconnection agreement to the interconnection customer within 10 business days of receipt of payment from interconnection customer for the minor Electric System modifications.

c) If the initial review determines that the proposed interconnection fails both the primary and the secondary screening criteria, then the proposed interconnection shall be addressed under Section XXX.100 – Scoping Meeting.

Section XXX.100 Scoping Meeting

A scoping meeting shall be made available by the interconnection provider to an interconnection customer whose application fails both the primary and secondary screening criteria.

a) At the request of either party, a scoping meeting shall be held within 10 business days, or as otherwise mutually agreed to by the parties, after the interconnection provider notifies the interconnection customer that the application fails both the primary and secondary screening criteria. The interconnection provider and interconnection customer shall bring to the scoping meeting, or make available via teleconferencing, personnel, including system engineers, and other resources required to accomplish the purpose of the meeting.

b) The purpose of the scoping meeting shall be to discuss the interconnection customer's interconnection request and to review existing non-confidential studies and information relevant to the interconnection customer's proposed interconnection. The parties shall further discuss the requirements for a feasibility/impact study in accordance with Section XXX.110. **[If a Scoping Meeting is held, the question is not whether the IP should perform the Feasibility/Impact Study, but whether the IC wants the IP to perform the study. The Scoping Meeting helps the IC understand the issues so that the IC can make an informed decision whether to proceed.]** The scoping meeting may be omitted by mutual agreement. If the scoping meeting is omitted, then the interconnection customer shall either withdraw the application for interconnection or the interconnection provider shall issue a feasibility/impact study to interconnection customer in accordance with Section XXX.110.

Section XXX.110 Feasibility/Impact Study

The feasibility/impact study shall identify the effect(s) of interconnecting the distributed resource to the interconnection provider's Electric System, including identification of potential violations caused by the interconnection, the effect the interconnection would have on system reliability, and to assist in the determination of a cost estimate for any Electric System modifications required for interconnection and/or for parallel operation. **[The term "facility" is not defined and is open ended. The term "Electric System" is the appropriate reference. The reference to "parallel operation" should be included because "interconnection" alone does not cover all potential Violations, reliability issues and cost impacts.]**

a) No later than twenty business days after holding a scoping meeting or mutually agreeing to omit the scoping meeting, interconnection provider, if requested by the Interconnection Customer, shall issue a feasibility/impact

study agreement that includes an outline of the scope of the study and a cost estimate to perform the feasibility/impact study. The feasibility/impact study agreement shall provide for a final true up of the cost estimate to perform the study with actual costs upon completion of the study. **[The IC should pay for the study prior to the IP conducting the study.]** The cost estimate shall include a summary of the estimated professional time necessary to complete the feasibility/impact study. To the extent reasonably practicable, the interconnection provider shall rely on existing studies of recent vintage to model interconnection conditions. **[The IP must be allowed to use a "reasonable" reliance on past studies to judge whether they should be utilized.]** The cost estimate shall not include the cost of existing studies; however, the cost estimate shall include an estimate of the cost of any new study or modifications to existing studies necessary to perform the feasibility/impact study. **[Five business days is not sufficient properly outline the scope of the study, review all available "existing studies", estimate the cost for preparing any new study, estimate the cost to modify any existing studies, and prepare a summary of the professional time necessary to complete the study. This is especially onerous when considering that the Interconnection Customer has 30 days just to respond. If sufficient time is not provided equitably to both parties, the result will be a detriment to the overall process. By providing sufficient time to perform the requirements of this Part, both parties will benefit from a process that yields fair and reasonable results.]**

b) Within thirty business days of receipt of the feasibility/impact study agreement or another mutually agreed upon time frame, interconnection customer shall return an executed feasibility/impact study agreement along with payment of the estimated cost of the feasibility/impact study. **[The IC should pay only for the actual cost of the study.]** The interconnection provider shall refund or collect the difference between the estimated cost and actual cost without interest by issuing either a refund or invoice for payment with the completed feasibility/impact study.

c) The feasibility/impact study shall include the following analyses: **[Need to rewrite scope of feasibility/impact and facilities studies to parallel FERC process]**

1) Short circuit analysis: including identification of any equipment short circuit capability limits exceeded as a result of the interconnection;

2) Power flow analysis: including identification of any potential thermal overload or voltage limit violations resulting from the interconnection;

3) Voltage drop and flicker analysis: including an examination of the expected magnitude and frequency of occurrence;

4) Protection analysis: Including coordination studies and identification of necessary changes in equipment, coordination set points, and/or grounding requirements as a result of the interconnection; and

5) A preliminary Cost estimate for any Electric System modifications and a preliminary time estimate for completion of such modifications, including a general description of all Electric System modifications required to interconnect the distributed resource to the interconnection provider's Electric System. The interconnection provider shall describe all functional deficiencies **[The term "functional deficiencies" is not a defined term and is not used elsewhere in the document.]** identified that may help the interconnection customer to address potential violations. The study shall list all potential violations that are a direct result of the interconnection, including short circuit, power flow, voltage, and protection issues. **[Requiring the IP to "itemize costs" is overly detailed and is not an element of this initial study. As stated in the first paragraph of Section xxx.010, the Feasibility/Impact Study is to "identify the effects" of the proposed interconnection and parallel operation. The Facilities Study in Section xxx.120 will provide the design and final cost estimate.]**

d) The feasibility/impact study shall consider all generating facilities that, when the feasibility/impact study is performed:

1) are directly interconnected to the electric power distribution system, or

2) are interconnected to affected systems and may have an impact on the interconnection request, or

3) have a pending earlier dated interconnection application or a fully executed interconnection agreement to interconnect to the interconnection provider's Electric System. **["fully executed" is the proper term – not "signed and valid". At this time there is no need for a queue to track requests. The date of a valid application should be sufficient to track requests.]**

e) A feasibility/impact study shall consider interconnection of the distributed resource based on its initial indicated purpose. If the indicated purpose of the distributed resource changes at any point in time, a new interconnection application is required. The interconnection provider shall

also suggest alternative approaches to the interconnection customer's proposed distributed resource interconnection if the interconnection provider identifies alternative approaches that would reduce interconnection costs or provide other benefits. **[Some of this language was copied from the Facilities Study section and moved to this location. Options should be reviewed at this stage and not when the IC moves to the Facilities Study stage.]**

f) If so requested by the interconnection customer at the time of the initial interconnection request, a feasibility/impact study shall consider multiple potential points of interconnection at a proposed project site, at the interconnection customer's cost. The Interconnection Provider will provide an estimate of any additional time necessary to consider analysis of multiple points of interconnection. **[Due to the limited time frames available for the IP to respond, multiple points of interconnection should allow the IP's additional time to complete the reviews and studies.]** If the interconnection customer requests a feasibility/impact study of additional potential points of interconnection after the studies of those in the initial interconnection request have been completed, then the additional requests shall require submission of a new interconnection application.

g) Within 45 business days after the date an authorized feasibility/impact study agreement and payment of cost estimate are received from the interconnection customer, the interconnection provider shall transmit a feasibility/impact study report to the interconnection customer that details the results of the feasibility/impact study. Within thirty days the Interconnection Provider will provide a true up of the difference between the actual and estimated cost to perform the feasibility/impact study. **[The IP needs sufficient accounting time to provide a true-up of costs.]**

1) In instances where the feasibility/impact study shows no potential for electric system violations or the need for Electric System modifications **[the definition of "Violations" is not sufficient to encompass the Interconnection Customer's potential obligations.]**, the interconnection provider shall within ten business days send the interconnection customer an interconnection agreement. **[If no "Violations" or "modifications" are necessary, by definition, the Facilities Study is not necessary.]**

2) In instances where a feasibility/impact study shows potential for violations on the Electric System or the need for modifications to the Electric System**[The last half of the sentence is not necessary because the defined term "Electric System" means that it is operated by the IP.]**,. **[These requirements are components of the Facilities Study and should not be included**

here.] and if requested by the Interconnection Customer, the interconnection provider shall, within ten business days of such request, send the interconnection customer a facilities study agreement in accordance with Section XXX.120. **[Instead of automatically sending the Facilities Study Agreement, the Interconnection Customer should request that it be sent. This allows the Interconnection Customer to make a decision whether to proceed based on the results of the Feasibility/Impact Study and allows them to indicate whether they really want to continue with their interconnection request.]**

3) When the interconnection provider determines the potential for an affected system due to the Distributed Resource, **[by definition an Affected System is one that has a "Violation"]**, the interconnection provider shall include in the feasibility/impact study report the contact information for each affected system. The interconnection customer shall respond to the interconnection provider's notification within five business days, stating whether the Interconnection Customer will proceed with a study on the affected system.

A) If the interconnection customer notifies the interconnection provider that it plans to proceed with a study on the affected system, within twenty business days after receipt of notification, the interconnection provider shall provide the Interconnection Customer with additional copies of the Facility/Impact Study for delivery to the affected system.

B) **[It is very important that the IP does not act as a liaison (effectively as a contractor) to the IC nor should the IP perform the study of the impact of a Distributed Resource on someone else's system. Only the Affected System can properly perform such study of its own electric system. The IC must act as its own "liaison" to help facilitate the study and this study must be performed through an agreement between the IC and the Affected System.]**

C) The interconnection Customer shall coordinate and the Affected System shall perform the affected system study. The Interconnection Customer shall convey results to the interconnection Provider within 5 business days after receipt of the Affected System Study from the Affected System.

D) If the interconnection customer chooses to proceed, the interconnection provider shall send the interconnection customer an interconnection agreement. **[The Facilities Study would have already been requested and provided under paragraph 2, above. Also, the Facilities Study must be performed in conjunction with the Affected System Study to provide a complete study process to the IC. The Affected System Study is meaningless without the Facilities Study.]**

4) Where a feasibility/impact study indicates potential for an affected system **[This is redundant]**, the interconnection customer must apply to the affected system, within twenty business days, in accordance with regulations that govern interconnections to the affected system. The interconnection customer shall cause the interconnection provider to receive a copy of the affected system's study results as soon as they are available. Within 30 business days after receipt of the results of the affected system study, the interconnection customer must notify the interconnection provider of its intention to proceed. If the interconnection customer chooses to proceed, the interconnection provider shall send the interconnection customer an interconnection agreement. **[The Facilities Study would have already been requested and provided under paragraph 2, above. Once the Affected System Study and Facilities Study are completed, the next step is an Interconnection Agreement.]**

Section XXX.120 Facilities Study

a) The facilities study determines the design of the specific modifications **[The "need" for modifications was an element of the Feasibility/Impact Study. The Facilities Study should provide the actual "design" of the modifications.]** to the electric system(s) necessary to interconnect the distributed resource and the cost of any necessary modifications. **[This should be a component of the Feasibility/Impact Study. By the time the IC gets to the Facilities Study, all options should have already been reviewed and the course of action decided upon.]** If the feasibility/impact study has determined that no electric system modifications are required, the facilities study shall not be required, and the project shall proceed directly to the execution of an interconnection agreement. **[Since the Feasibility/Impact Study does not address "interconnection facilities' this term should not be used. The term "Electric System modifications" is sufficient to address the issue.]**

b) **[This is not in accord with Section 110(g)(1). And the transmittal should only occur if the IC indicates that it wants to continue with the study.]** The facilities study agreement shall include an outline of the scope of the study and an estimate of the costs to perform the facilities study. The cost estimate shall include a summary of the estimated professional time necessary to complete the facilities study. The facilities study agreement shall provide for a final true up of the cost estimate with actual costs upon completion of the study. **[Binding cost estimates should not be an option. This will protect both the IP and the IC.]** Within 30 business days of receipt of the facilities study agreement, the interconnection customer must return an executed facilities study agreement with payment of the estimated cost of the facilities study or the Interconnection Request will be deemed withdrawn. **[A time limit with consequences must be applied to the IC to prevent the IP from holding resources open in case the IC responds at a later date.]**. **[This sentence is not necessary as noted above.]**

c) The design of any transmission system modifications necessary to allow interconnection of the Distributed Resource to the distribution system and/or distribution system interconnection design for any required interconnection facilities and/or the design of any Electric System modifications shall be performed under a facilities study agreement. **[The additional language helps to clarify what is included in the Facilities Study. The terms "high voltage" and "electric power" are redundant. Since the study can only occur between the IP and IC, this is also redundant language.]** The interconnection provider may contract with consultants, including contractors acting on behalf of the interconnection provider, to perform some or all of the activities required under the facilities study agreement. The interconnection customer and the interconnection provider may reach mutual agreement allowing the interconnection customer to separately arrange for the design of some or all of the required interconnection facilities. If the interconnection customer arranges for the design of some or all of the required Electric System modifications, **[As previously noted, "Electric System modifications" is a consistent term used in this document. "facilities" is not.]** the design shall be reviewed and/or modified prior to acceptance by the interconnection provider, under the provisions of the facilities study agreement. If the parties mutually agree to separately arrange for design and construction, the interconnection provider shall make sufficient information available to the interconnection customer to permit the interconnection customer to obtain an independent design and cost estimate for any Electric System modifications.

d) **[This is unnecessary language.]**The facilities study shall be completed within 45 business days after the interconnection provider's receipt of an

executed facilities study agreement. An extension of time may be required by the Interconnection Provider for complex design requirements or for interconnection of generators larger than 1 MW or if the study is to consider multiple points of interconnection. **[If all electric system modifications must be designed under the Facilities Study, 45 days may not be sufficient in certain circumstances.]**

e) Where Electric System modifications **[The term "modifications" is sufficient to describe all of the requirements. The term "additional interconnection facilities" is not needed and is confusing without further definition.]** are required to permit the interconnection of a distributed resource, the interconnection customer shall bear the cost of the Electric System modifications as determined by the facilities study. The interconnection customer's cost of Electric System modifications may be offset by mutual agreement with subsequent interconnection customers, or by other laws, rules, tariffs, or billing experiments. **[Crediting is NOT an option in the proposed Rule and should be deleted.]**

f) An interconnection provider may propose to group facilities required for more than one interconnection customer addition in order to minimize Electric System modification costs through economies of scale, but any interconnection customer may require the Electric System modifications required for its own system if it is willing to pay the costs of those modifications.

Section XXX.130 Compliance

No later than 120 days **[30 days is not sufficient time to prepare and file a tariff.]** after the effective date of this Part as amended, each interconnection provider shall file a tariff or tariffs for interconnection and parallel operation of distributed resources in conformance with the provisions of this Part. The utility shall file a new tariff or a modification of an existing tariff. Any modifications of existing tariffs or new tariff filings relating to this section shall be consistent with this Part. Concurrent with the tariff filing required by this section, each utility shall submit:

a) an initial review fee schedule and all supporting cost data for the fees;

b) an interconnection agreement in form of the agreement attached as Appendix A; and

c) standard applications for interconnection and parallel operation of distributed generation in the form of the applications in Appendices B and C.

Section XXX.140 Designation of Interconnection Provider Contact Persons

a) The interconnection provider and interconnection customer shall designate a person or persons who shall serve as their respective interconnection contacts for all matters related to distributed resource interconnection.

b) Each interconnection provider shall identify its distributed resource contact person to the Illinois Commerce Commission's Director of the Consumer Services Division and Director of the Energy Division.

c) Each interconnection provider shall provide convenient access through its Internet web site to the names, telephone numbers, mailing addresses and electronic mail addresses of its distributed resource contact employees or office.

Section XXX.150 All Reasonable Efforts

The interconnection provider and the interconnection customer **[This should be a requirement for both parties.]** shall make all reasonable efforts to meet all time frames provided in this Part unless the interconnection provider and the interconnection customer mutually agree to a different schedule. The interconnection provider shall make all reasonable efforts to complete system modifications on or before the estimated deadline for completion. If the interconnection provider or the Interconnection Customer cannot meet a deadline provided in this Part, including deadlines provided in agreements, it shall notify the interconnection customer or Interconnection Provider in writing no later than three business days after the deadline has passed. The notification shall explain the reason for the failure to meet the deadline and provide an estimated time by which it shall complete the applicable interconnection procedure. If the Interconnection Customer fails to meet a new or revised deadline, the Interconnection Provider shall consider the request to be deemed withdrawn. **[If the Interconnection Customer is allowed to miss deadlines without consequence, it will likely bind up valuable resources of the Interconnection Provider.] [Informational filings for being late with a study is overly burdensome. This is an unnecessary and onerous requirement considering that there are 19 separate deadline provisions for the Interconnection Provider in this Draft Rule. Instead, the Interconnection Customer should have the option of filing a complaint for unreasonable delays.]**

Section XXX.160 Metering

Any metering necessitated by the use of the distributed resource shall be installed in accordance with state regulatory requirements and interconnection provider's electric tariffs. Unless otherwise mutually agreed to between interconnection customer and interconnection provider, interconnection provider shall install, at Interconnection Customer's cost, separate metering to measure any generation output in excess of

load. **[All energy placed onto the Interconnection Provider's electric system must be measured for proper accounting and other purposes.]**

Section XXX.170 Installation, Commissioning, and Testing

a) Within 20 business days of the execution of an interconnection agreement, the interconnection customer shall provide the interconnection provider with an estimate of the date on which the distributed resource shall be operational. The estimated date shall be no later than the latter of 18 months after the date that the interconnection agreement was executed or 18 months after the date that Electric System modifications were completed by the interconnection provider. Installation of the interconnection customer's distributed resource shall be completed as specified in the standardized application, the interconnection agreement, and any studies indicating a need to modify the interconnection customer's distributed resource. The interconnection customer shall inform the interconnection provider in writing when the installation of the distributed resource is complete. If the customer fails to install and inform the interconnection provider of the installation within the time limits specified in this subsection, the interconnection customer must reapply for interconnection before interconnection can take place unless an extension on the deadline to interconnect is mutually agreed to between the interconnection customer and the interconnection provider. However, failure of the interconnection customer to meet the estimated date of operation shall not require reapplication for interconnection.

b) Commissioning tests of an interconnection customer's installed distributed resource shall be performed pursuant to applicable codes and standards. The interconnection provider shall list all testing requirements in the interconnection agreement. The interconnection customer shall give the interconnection provider 10 business days written notice, or another mutually agreed upon timeframe, of the tests. Interconnection provider shall be present to complete the interconnection, inspect the interconnection customer's interconnection equipment, and witness the commissioning tests. **[By adding the phrase "have the right to", there is no requirement for the IC to confirm with the IP that the Dist. Resource operates properly. The IP must be the one present to "complete the interconnection" and must be a witness to the compliance of the Distributed Resource's final installation prior to interconnection and operation. Also, the IP should not inspect for "compliance with applicable codes and standards." The IP is not responsible for the actual IC Distributed Resource.]** The interconnection provider shall assess no charges related to the initial inspection. **[The policy of no inspection charges will socialize costs where the causation is directly attributable to the Interconnection Customer's actions. Isolating the Interconnection Customer from**

these costs will unfairly subsidize the true cost for installing Distributed Resources. The Interconnection Customer should bear all costs associated with interconnection to allow for the marketplace to effectively guide the efficient installation and selection of new generation.]

c) If the inspection of the interconnection customer's interconnection equipment does not result in a finding that the interconnection equipment is in compliance with applicable codes and standards and the executed agreement, the interconnection provider shall provide written notification to the interconnection customer explaining why the interconnection equipment was not in compliance within five business days of the inspection. Within 30 business days of notification of non-compliance or another mutually agreed upon time, the interconnection customer shall address the non-compliance and notify the interconnection provider that it is prepared for another inspection.

d) The interconnection provider shall not require testing of the interconnection customer's interconnection equipment more frequently than it tests its own equipment, and the Interconnection Customer shall provide or make available to the Interconnection Provider the results of the tests.

Section XXX.180 Reporting Requirements

a) Each interconnection provider shall maintain records concerning applications received for interconnection and parallel operation of distributedResources under this Part. Such records shall include the date each application is received, all documents generated in the course of processing each application, correspondence regarding each application, and the final disposition of each application.

b) **[The requirement to post this information is overly burdensome, without justification and raises security issues. The Interconnection Customer should meet and discuss with Ameren personnel the details of their proposed Distributed Resource so that all parties can adequately address the issues, needs and technical requirements on an individual basis. By providing such information to the general public, the Interconnection Customer has a much great chance of wasting time and effort through misinterpretation or misunderstanding of the data. Also, there are significant security and confidentiality issues related to the general posting of such information.]**

Section XXX.190 Complaint Procedures

Complaints alleging violations of this Part shall be filed pursuant to 83 Ill. Adm. Code 200.